

REMARKS

Claims 11, 14-17, 22, and 25-36 are pending in this application. By this Amendment, claim 11 is amended and claims 25-36 are added. Support for the amendments to the claims may be found, for example, in the originally filed specification and claims. No new matter is added.

In view of the foregoing amendments and following remarks, Applicants respectfully request reconsideration and allowance.

I. Rejections Under 35 U.S.C. §103

A. Strom, Grayson, and Aven

1. Claim 11

The Office Action rejects claims 11, 14, 15, 17, and 22 under 35 U.S.C. §103(a) as obvious over U.S. Patent Application Publication No. 2001/0051175 to Strom et al. ("Strom"), Grayson et al., *Effect of adjuvants on the performance of the new cereal fungicide, metconazole. I Glasshouse Trials*, 45 Pesticide Sci 153-160 (1995) ("Grayson"), and EP 1023832 to Aven ("Aven"). Applicants respectfully traverse the rejection.

The references do no more than merely teach that the individual components are known. Indeed, one of ordinary skill in the art would not have had a reason to select (a) an active compound, (b) a penetration enhancer, AND (c) a dispersant mixture as claimed for at least the following reasons.

a. No reason to select (a) the active compound as claimed

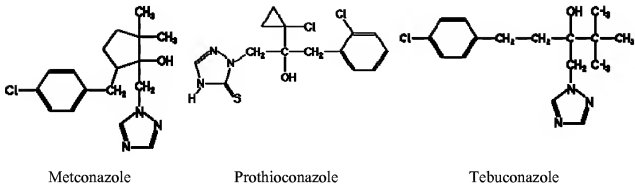
The Office Action fails to set forth a reason to select the claimed active compounds in the first place. Claim 11, as amended, recites an active compound "selected from the group

consisting of prothioconazole, tebuconazole, metaminostrobin, and trifloxystrobin." Although Strom generically discloses hundreds if not thousands of active compounds (including pesticides, herbicides, and fungicides), Strom fails to mention the recited active compounds of prothioconazole, tebuconazole, metaminostrobin, and trifloxystrobin. Grayson discloses metconazole formulations, an active compound not encompassed by claim 11. Aven, like Strom, discloses a laundry list of pesticides, most of which do not read on the claimed active compounds. Admittedly, Aven discloses tebuconazole and trifloxystrobin in paragraph [0017]; however, it does so along with over 150 other fungicides and numerous other herbicides. Because the mere listing of a compound does not provide a reason to select it from thousands of possibilities, one of skill in the art would not have had any reason to select from the applied references any one of "prothioconazole, tebuconazole, metaminostrobin, and trifloxystrobin" as claimed. As such, a *prima facie* case of obviousness has not been established.

b. No reason to select (b) the penetration enhancer and combine it with the other claimed features

The Office Action fails to set forth a *prima facie* case of obviousness for a composition including (b) the penetration enhancer of claim 11, which recites: "between 5 and 20% by weight, based on the suspension concentrate of at least one penetration enhancer selected from the group consisting of alkanolethoxylates of formula (I)." Grayson is newly asserted to cure Stroms acknowledged deficiency to teach or suggest the penetration enhancer of claim 11. However, a person having ordinary skill in the art would not have had a reason to combine the references to yield the claimed suspension concentrate for at least the reasons outlined below.

First, the Office Action fails to set forth a sufficient reason for using the alcohol ethoxylates of Grayson with azoles other than metconazole, to which Grayson is exclusively directed. In Grayson, various alcohol ethoxylates (Genapol C050, C080, C100, and C200) are used to enhance the activity of metconazole. The Office Action asserts at page 6 that it would have been obvious to use the same alcohol ethoxylates with other azoles such as the claimed tebuconazole and prothioconazole. Although each of metconazole, tebuconazole, and prothioconazole has an azole group, the differences in structures and functional groups are numerous as illustrated below.



Given the differences, it would not have been obvious to one of skill in the art that the alcohol ethoxylates used with metconazole would yield a similarly predictable result, especially in view of the fact that claim 11 consists of (a), (b), AND (c). The Office Action fails to set forth any reasoning or evidence why the differences between these compounds are unimportant in establishing a predictable expectation of success.

If anything, Grayson supports the proposition that specific combinations of actives and alcohol ethoxylates are not obvious to try because in Grasion varying results were obtained with different alcohol ethoxylates. For example, Grayson determined that metconazole works best with alcohol ethoxylates with a lower ethylene oxide content. Specifically, Grayson teaches that

Genapol C050 and Genapol C080 were superior to Genapol C100 and Genapol C200. Thus, there would have been no predictable expectation of success in combining the alcohol ethoxylates of Grayson with prothioconazole or tebuconazole which have substantial differences from metconazole.

Second, even were one of skill in the art to modify Strom by adding the alcohol ethoxylates of Grayson, there is no suggestion to add "between 5 and 20% by weight" of the penetration enhancer as recited in claim 11. The Office Action asserts at page 5 that section 2.3 of Grayson teaches that "adjuvants were utilized in 10%." However, section 2.3 actually teaches that 2.5 g of adjuvant were dispersed in 250 ml of tap water. Thus, the adjuvant solution had approximately 1% by weight of adjuvant (2.5/250). This was further diluted by mixing the adjuvant solution with a formulation dispersion. In view of Grayson's actual disclosure, it is unclear how Grayson teaches a suspension concentrate comprising "between 5 and 20% by weight" of the penetration enhancer as asserted in the Office Action. Strom is also silent in this regard because it fails to teach at all the alcohol ethoxylate penetration enhancer or the recited active compounds in the first place.

In addition, neither Strom nor Aven suggest a problem with their compositions that would necessitate the need for an enhancer. As such, there would have been no reason to add any enhancer, let alone the claimed enhancer in the claimed amount as recited in claim 11.

c. No reason to select (c) the dispersant mixture and combine it with the other claimed features

The Office Action also fails to set forth a *prima facie* case of obviousness for a composition including (c) the dispersant mixture of claim 11, which recites:

(c) between 3 and 8% by weight, based on the suspension concentrate, of at least one dispersant mixture selected from the group consisting of

(i) a polymer of methyl 2-methyl-2-propenoate and α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl) and tristyrylphenoethoxylate having an average of 50 to 60 oxyethylene units,

(ii) a polymer of methyl 2-methyl-2-propenoate and α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl) and a propylene oxide/ethylene oxide block copolymer having a molecular weight between 8000 and 10,000 and an ethylene oxide proportion of between 40 and 60% by weight, and

(iii) a tristyrylphenoethoxylate having an average of 50 to 60 oxyethylene units and a propylene oxide/ethylene oxide block copolymer having a molecular weight between 8000 and 10,000 and an ethylene oxide proportion of between 40 and 60% by weight.

As acknowledged by the Office Action at page 4, Strom does not suggest or exemplify any of the recited dispersant mixtures, which may also be listed by trade name for ease of reference as follows:

(i) Atlox 4913 and Soprophor TS 60

(ii) Atlox 4913 and Pluronic PE 10 500

(iii) Pluronic PE 10 500 and Soprophor FLK

Still, the Office Action asserts that the mixtures would have been obvious in view Strom, Grayson, and Aven. Applicants respectfully disagree.

While Strom generally discloses surfactants combined with active ingredients, it fails to teach or suggest any of the claimed dispersant mixtures (i), (ii), or (iii). For example, not one of Strom's seven examples uses any of the specific dispersant mixtures recited in claim 11, let alone the combination of instant components (a), (b), and (c). Instead, different combinations or single surfactants are used such as: Morwet D425 and Pluronic P105 (Example 1); Atlox 4991 and

Atlox 4913 (Example 3); Iconol TD-6 (Example 6); and Soprophor FL and Empicol LX 28 (Example 7). As discussed above, Strom does not teach or suggest the recited active compounds or penetration enhancers. Thus, even were one of skill in the art to select a dispersant mixture that reads on claim 11, there would still be no reason to combine it with any of the claimed active compounds and the claimed penetration enhancer.

Aven discloses Soprophor FL and Pluronic PE 10 500. However such a disclosure does no more than set forth what Applicants already admit, namely, that the individual components are known. Despite its disclosures, Aven, like Strom, also fails to disclose the recited dispersant mixtures, let alone set forth a single example where Soprophor FL and Pluronic PE 10 500 are used together. Instead, Aven uses dispersant combinations that include dispersants which are not recited in claim 11.

None of the references discloses any of the claimed dispersant mixtures nor does the Office Action set forth a sufficient reason as to why one of skill in the art would have selected any one of dispersant mixtures (i), (ii), or (iii), let alone combined any of these mixtures with an active compound and penetration enhancer as claimed.

At least because the asserted selections, modifications, and combinations are not supported by sufficient reasoning, a *prima facie* case of obviousness has not been established for the suspension concentrate of claim 11. Accordingly, claim 11, and its dependent claims 14, 15, 17, and 22 would not have been obvious in view of Strom, Grayson, and Aven.

2. Claims 14, 15, and 17

In addition to the above reasons relating to claim 11, claims 14, 15, and 17, would not have been rendered obvious by the applied references because the Office Action and references fail to establish any rationale to select "tebuconazole," "tebuconazole and trifloxystrobin," or "trifloxystrobin" as respectively recited in claims 14, 15, and 17. Both Strom and Grayson are silent with respect to these specific active compounds and active compound combination. The Office Action asserts that Aven cures this deficiency. Applicants respectfully disagree.

Claims 14 and 17 recite "tebuconazole" and "trifloxystrobin." With respect to these active compounds, Aven does no more than teach that they are known, which Applicants already admit. However, their selection and combination with the claimed components (b) and (c) is not known and would not have been obvious. The fact that a compound is known is not sufficient to establish a reasonable expectation of success in adding such a compound into the asserted and modified composition of Strom and Grayson. Indeed, Grayson's tailoring of metconazole formulations serves to support the idea that penetration enhancement is unpredictably influenced by the various components. The Office Action fails to set forth a reason to select these compound from the NUMEROUS other compounds disclosed in Aven.

Claim 15 recites the active compound combination "tebuconazole and trifloxystrobin." The Office Action fails to set forth any reason to make the selection of this active compound pair. As such, a *prima facie* case of obviousness has not been established for claim 15.

In addition, claims 15 and 17 further distinguish themselves from the art because they recite non-azole compounds. The Office Action relies on the extension of the teachings of

Grayson, which describes metconazole formulations, to other "azole" compounds. However, trifloxystrobin is not an "azole" compound.

At least because the Office Action fails to set forth a reason for applying the teachings of Grayson to non-azole compounds or active compound combinations including non-azole compounds, a *prima facie* case of obviousness has not been established for claims 15 and 17.

Accordingly, claims 14, 15, and 17 would not have been rendered obvious by the applied references.

3. **Claim 22**

In addition to the above reasons relating to claim 11, claim 22 would not have been rendered obvious by the applied references for the following additional reasons. Even were one of skill in the art to incorporate an alcohol ethoxylate of Grayson into the composition of Strom, there would be no reason to select from Grayson the very specific alcohol ethoxylate of formula (I) where "m represents 11 and n represents 10" as recited in claim 22. Indeed, and as discussed above, Grayson discloses that Genapol C050 and Genapol C080 were superior to Genapol C100 and Genapol C200. Thus, even if the Office Action's rationale of extending the teachings of Grayson and metconazole to other azole compounds was applied (which Applicants contest above), one of skill in the art would not have had a reason to select Genapol C100, which corresponds with formula (I) when m is 11 and n is 10, but would have instead, according to the Examiner, have selected one of the Genapols with a lower ethylene oxide content. Moreover, one of ordinary skill in the art would have had no reason to select the specific integers of claim 22 because there is no suggestion in Grayson or the other references that such a specific alcohol ethoxylate will work with the active compounds and dispersant mixtures of claim 11.

Accordingly, claim 22 would not have been rendered obvious by the applied references.

B. Strom, Grayson, Mauler, and Heinemann

The Office Action rejects claims 11 and 16 are rejected over the combination of Strom, Grayson, U.S. Patent No. 6,559,136 to Mauler-Machnik et al. ("Mauler"), and WO 9727189 to Heinemann et al. ("Heinemann"). Applicants respectfully traverse the rejection for at least the following reasons.

First, the combination of Strom, Grayson, Mauler, and Heinemann would not have rendered obvious claims 11 and 16 because of the deficiencies of Strom and Grayson discussed above. Mauler and Heinemann are only asserted for their alleged disclosure of prothioconazole and fluoxastrobin. Thus, the deficiencies described above remain with respect to this second combination of references and claims 11 and 16.

Second, the applied combination of references would not have rendered obvious claims 11 and 16 because the Office Action and the references fail to establish any reasonable rationale to select the specific compounds recited in claim 11, and more specifically the particular combination of "prothioconazole and fluoxastrobin" recited in claim 16 from Mauler and Heinemann in the first place.

Admittedly, prothioconazole and fluoxastrobin are known compounds and are respectively described in Mauler and Heinemann. However, their compatibility with the claimed penetration enhancers and dispersant mixtures would not have been obvious just because they are known. One of skill in the art would not have had a reason to select the specifically claimed active compounds of claim 16 from the laundry list of actives disclosed in Mauler and

Heinemann and also have had any reason to expect that the combination of prothioconazole and fluoxastrobin would work in the already modified composition derived from Strom and Grayson.

Mauler is directed to active compound combinations comprising pyrimidines and other known fungicidally active compounds in specific weight ratios that result in synergistic effects. Mauler sets forth a very broad formula for pyrimidines (some of which are described in Heinemann) encompassing dozens of possible pyrimidines along with at least 82 "other known" fungicidally active compounds. As such, Mauler literally sets forth thousands of possible pyrimidine/other fungicide combinations. One of skill in the art would have had no reason to make the particular selection as asserted by the Examiner.

Moreover, as with claims 15 and 17, claim 16 further distinguishes itself from the art because it recites non-azole compound, fluoxastrobin. Thus, for all the reasons stated above with respect to claims 15 and 17, the Office Action's extension of the teachings of Grayson to non-azole actives is unfounded. At least because the Office Action fails to set forth a reason for applying the teachings of Grayson to non-azole compounds, let alone an active compound combination that includes non-azole compounds, a *prima facie* case of obviousness has not been established for claim 16.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

II. New Claims

By this Amendment, new claims 25-36 are presented. New claims 25-36 depend from claim 11 and, thus, distinguish over the applied references for at least the reasons discussed

above with respect to claim 11. Prompt examination and allowance of new claims 25-36 are respectfully requested.

III. Conclusion

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Applicants earnestly solicit favorable reconsideration and prompt allowance of the application.

Should the Examiner believe that anything further would be desirable to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below. Applicants authorize the Commissioner to charge Deposit Account No. 50-4254, referencing Attorney Docket No. 2903925-265000 for fees due or any deficiencies of fees and to credit any overpayments.

Respectfully submitted,
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